

## CITY OF HAYWARD

### AGENDA REPORT

AGENDA DATE 07/08/03

AGENDA ITEM 3

WORK SESSION ITEM           

**TO:** Mayor and City Council

**FROM:** Director of Public Works

**SUBJECT:** Authorization for the City Manager to Execute a Professional Services Agreement for Construction Management Services for the Water Pollution Control Facility Improvements Phase I

#### RECOMMENDATION:

It is recommended that the City Council adopt the attached resolutions, which will authorize the City Manager to execute a Professional Services Agreement with Consolidated CM, a construction management firm, in an amount not to exceed \$1,400,000, for Construction Management Services for the Water Pollution Control Facility (WPCF) Improvements Phase I.

#### DISCUSSION:

To overcome the lack of redundancy of critical treatment components at the WPCF and to ensure that the quality of effluent will consistently meet the State's requirements, the City contracted with Brown and Caldwell Environmental Engineering and Consulting to provide plans and specifications to construct the Phase I improvements. When completed, this project will provide reliability and capacity needed to meet the City's wastewater treatment needs through 2020. Plans, specifications, and engineering estimate are schedule to be completed and available for bidding in the spring of 2004.

This project will be the largest and most complex utility construction project the City has recently undertaken. The existing WPCF site is essentially being retrofitted with new facilities and treatment processes, which is inherently far more complicated than building a new facility from the ground up. The project will involve the integration of specialized and complex mechanical, electrical, computer control, piping and structural modifications. The work must be phased and completed around ongoing operations, as the WPCF must continue to operate at full capacity for the duration of construction. The demand for construction management at the level required by this project is currently beyond the ability and staffing resources of the City, and therefore, staff recommends that the City enter into an agreement with an experienced construction management firm.

Construction management services will have two phases. The first phase, which will take place prior to bid, will focus on biddability and constructability as related to the design plans and specifications. Biddability/constructability is commonly performed on large complex projects. As the name implies, the biddability effort is to ensure that the plans and specifications have been prepared in a complete manner that allows contractors to bid the project without having to make assumptions of their own. Constructability ensures that the project components, as shown on the plans and called for in the specifications, can be constructed in a cost effective manner. Biddability/constructability is best done before the plans and specifications are completed (preferably at the current 70 percent stage) since: 1) the plans are complete enough to allow meaningful review; and 2) they are not in the final stages where changes could result in major and costly revisions. It is preferable that the biddability/constructability review be performed by a construction management firm, rather than a design firm, since the construction management background and experience facilitates review from a contractor's point of view.

The main part of construction management services will occur during project construction. The firm will witness and document ongoing construction activities, provide daily inspection, consider and process requests for information and contract change orders, and perform other activities to ensure contract compliance. Where possible, it is more efficient to have the same firm perform the biddability/constructability review and provide construction management services, since the familiarity gained during the review phase can be used when the project is under construction.

The City will realize several benefits from using construction management services for the WPCF project, notably proactive oversight and management of the complicated construction phases. During the construction phase, a project of this scope and complexity could generate a large number of contractor inquiries and requests for change orders that can result in significant project cost increases. The City may avoid some of these construction-related costs by first ensuring that the bid documents are complete, accurate and comprehensive, and secondly, by reacting to requests for information and clarification from the contractor in a timely manner and with responses that are based upon project knowledge, experience, and a thorough understanding of construction practices and law. The biddability/constructability review will likewise reduce the likelihood of ambiguity in the bid documents and costly change orders.

The use of outside services would avoid the need to hire specialized staff that would be used only for a relatively short period of time. As noted earlier, the WPCF Phase I Improvement project is larger in scope and complexity than any previous or planned utility project. It would be difficult to locate and hire personnel who possess the necessary combination of experience, skills and knowledge and who would be willing to work for a short duration, and it would not be in the City's economic interest to add permanent staff based on the needs of one discrete project. Construction management services would fill the need for an experienced, knowledgeable advocate for the City without committing financial resources beyond the life of the project.

Brown and Caldwell's current construction cost estimate is in excess of \$33 million for Phase I. The construction period is planned to last about 30 months. Construction management will require a focused and high-resource construction-management effort for the entire 30-month period.

#### **Key Project Milestones:**

Following are key project dates related to the WPCF Phase I Improvements. Note that the dates beyond the completion of design assume that the State approves the City's State Revolving Fund loan in April 2004.

Completion of Design	December 2003
Funding Availability (assumed)	April 2004
Call for Bids	April 2004
Award of Contract	June 2004
Construction of Trickling Filter and Final Clarifier	August 2005
Construction of Solids Contact Tank	October 2006
Complete Project	December 2006

#### **Consultant Selection**

Staff requested ten firms to submit proposals for the project. All ten firms regularly offer or specialize in construction management services. Six firms responded with proposals.

Of those responding, staff believes that Consolidated CM's qualifications best meet the City's needs and objectives. This recommendation is based upon relevant experience and the qualifications of the Project Manager, Resident Engineer, and Inspector selected for this project. Team members are licensed professional engineers as appropriate. As there will be no subconsultants, due to the nature of the services, utilization of MBE and WBE subconsulting was not a factor in the proposals.

Analysis of submitted proposals shows a range for estimated costs from about \$1 million to \$2.5 million. The overall unit cost per hour for all respondents were nearly the same, and the spread was attributable to the assumed length of construction period and the proposed staffing during that period. Although Consolidated Management submitted a higher estimated cost initially, subsequent negotiation has substantially reduced their estimate to the mid-range of all respondents, while still reflecting a realistic resource effort. The not-to-exceed costs of \$1,400,000 represents less than 5 percent of the construction, which is reasonable for this

complex project. Staff believes that the proposed construction management services can help contain construction cost overruns and allow existing staff resources to be directed toward other construction projects.

**Funding:**

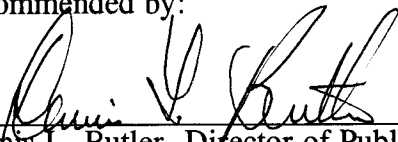
The Proposed 2003-04 Capital Improvement Program includes a total of \$36.5 million for the WPCF Phase I Improvements.

Prepared by:



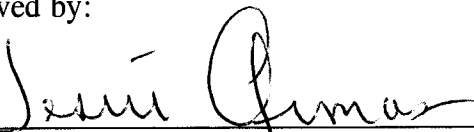
Alex Ameri, Deputy Director of Public Works

Recommended by:



Dennis L. Butler, Director of Public Works

Approved by:



Jesús Armas, City Manager

**DRAFT**

NH  
4/14/03

HAYWARD CITY COUNCIL

RESOLUTION NO. \_\_\_\_\_

Introduced by Council Member \_\_\_\_\_

RESOLUTION AUTHORIZING THE CITY MANAGER  
TO EXECUTE AN AGREEMENT BETWEEN THE CITY  
OF HAYWARD AND CONSOLIDATED CM FOR  
CONSTRUCTION MANAGEMENT SERVICES FOR THE  
WATER POLLUTION CONTROL FACILITY  
IMPROVEMENTS PHASE I PROJECT

BE IT RESOLVED by the City Council of the City of Hayward that the City Manager is hereby authorized and directed to negotiate and execute on behalf of the City of Hayward an agreement with Consolidated CM for construction management services for the Water Pollution Control Facility Improvements Phase I, in an amount not to exceed \$1,400,000, in a form to be approved by the City Attorney.

IN COUNCIL, HAYWARD, CALIFORNIA \_\_\_\_\_, 2003

ADOPTED BY THE FOLLOWING VOTE:

AYES: COUNCIL MEMBERS:

NOES: COUNCIL MEMBERS:

ABSTAIN: COUNCIL MEMBERS:

ABSENT: COUNCIL MEMBERS:

ATTEST: \_\_\_\_\_  
City Clerk of the City of Hayward

APPROVED AS TO FORM:

\_\_\_\_\_  
City Attorney of the City of Hayward